

200 E. Randolph Drive, Suite 4700 ♦ Chicago, IL 60601 ♦ (312) 856-8700 ♦ FAX (312) 938-0118

July 11, 2003

Mr. Nabil Fayoumi Remedial Project Manager Remedial Branch U.S. Environmental Protection Agency Region 5 77 West Jackson Boulevard Chicago, IL 60604

Subject: Letter Report

> **Borrow Pit Lake Mercury Sampling Event** Sauget Area 1, Dead Creek Segment F Cahokia, St. Clair County, Illinois

**Technical Direction Document No. S05-0302-016** 

Tetra Tech Contract No. 68-W-00-129

Dear Mr. Fayoumi:

The Tetra Tech EM Inc. (Tetra Tech) Superfund Technical Assessment and Response Team (START) is submitting the enclosed letter report for oversight of mercury sampling at the Sauget Area 1, Dead Creek Segment F, Borrow Pit Lake site in Cahokia, Illinois. If you have questions or comments regarding the report or require additional copies, please contact Chad Gibson at (312) 946- 6475, Thomas Kouris at (312) 946-6431, or myself at (314) 892-6322, ext. 25.

Sincerely,

from Thomas G. Binz

Tetra Tech START Deputy Project Manager

Enclosure

Lorraine Kosik, U.S. EPA START Project Officer cc:

> Thomas Kouris, Tetra Tech START Program Manager Chad Gibson, Tetra Tech START Project Manager



# **BORROW PIT LAKE** MERCURY SAMPLING EVENT **SAUGET AREA 1** DEAD CREEK SEGMENT F

CAHOKIA, ST. CLAIR COUNTY, ILLINOIS

SITE INVESTIGATION REPORT

TDD No.: S05-0302-016

Contract Number: 68-W-00-129

Prepared for

**U.S. Environmental Protection Agency Region 5 Remedial Branch** 77 West Jackson Boulevard Chicago, IL 60604

Prepared by:



# LETTER REPORT BORROW PIT LAKE MERCURY SAMPLING EVENT DEAD CREEK SEGMENT F CAHOKIA, ST. CLAIR COUNTY, ILLINOIS

#### Prepared for:

U.S. ENVIRONMENTAL PROTECTION AGENCY
Region 5 Remedial Branch
77 West Jackson Boulevard
Chicago, IL 60604

Date Prepared: July 11, 2003 Contract No.: 68-W-00-129 S05-0302-016 TDD No.: Tetra Tech EM Inc. Prepared by: Tetra Tech START Project Manager.: Thomas G. Binz Telephone No.: (314) 892-6322 U.S. EPA Remedial Project Manager.: Nabil Fayoumi Telephone No.: (312) 886-6840

#### **CONTENTS**

Section	<u>Pa</u> s	<u>ze</u>
1.0	INTRODUCTION	1
2.0	SITE BACKGROUND	2
3.0	DAILY SITE SAMPLING ACTIVITIES	6
	3.1 OBSERVED SAMPLING TECHNIQUES 3.2 TUESDAY, MAY 6, 2003 3.3 WEDNESDAY, MAY 7, 2003 3.4 THURSDAY, MAY 8, 2003 3.5 FRIDAY, MAY 9, 2003 3.6 MONDAY, MAY 12, 2003 3.7 TUESDAY, MAY 13, 2003 1	9   1   3   5
4.0	UMMARY 2	<u>!</u> 1

#### **Appendix**

SAMPLE CHAIN-OF-CUSTODY RECORDS

### CONTENTS (Continued)

#### **FIGURES**

<u>Figure</u>	<u>Page</u>
1	SITE LOCATION MAP
2	SEDIMENT SAMPLING LOCATIONS
	TABLES
<u>Table</u>	Page
1	SUMMARY OF JEROME MVA MODEL 411 MERCURY FIELD SCREENING RESULTS
2	SEDIMENT SAMPLES COLLECTED ON MAY 6, 2003
3	SEDIMENT SAMPLES COLLECTED ON MAY 7, 2003
4	SEDIMENT SAMPLES COLLECTED ON MAY 8, 2000
5	SEDIMENT SAMPLES COLLECTED ON MAY 9, 2003
6	SEDIMENT SAMPLES COLLECTED ON MAY 12, 2003
7	SEDIMENT SAMPLES COLLECTED ON MAY 13, 2003

#### 1.0 INTRODUCTION

The Tetra Tech EM Inc. Superfund Technical Assessment and Response Team (START) prepared this letter report in accordance with the requirements of Technical Direction Document (TDD) No. S05-0302-016 issued by the U.S. Environmental Protection Agency (U.S. EPA). The scope of this TDD was to conduct mercury sampling oversight activities at the Borrow Pit Lake, Sauget Area 1, Dead Creek Segment F (Borrow Pit Lake) site in Cahokia, St. Clair County, Illinois. START was tasked to oversee sampling activities conducted by private responsible parties (PRP) at the site and document on-site activities through written logbook notes. A total of 60 sampling locations were surveyed and sampled by representatives from Blasland, Bouck & Lee Sciences (BBL Sciences). This report discusses the site background and daily site sampling activities, and presents a summary of oversight activities. The appendix to this report provides copies of sample chain-of-custody records for all sample deliveries to out-of-state laboratories. Analytical results are not a component of this letter report because field sampling activities were recently completed and results are not available at this time.

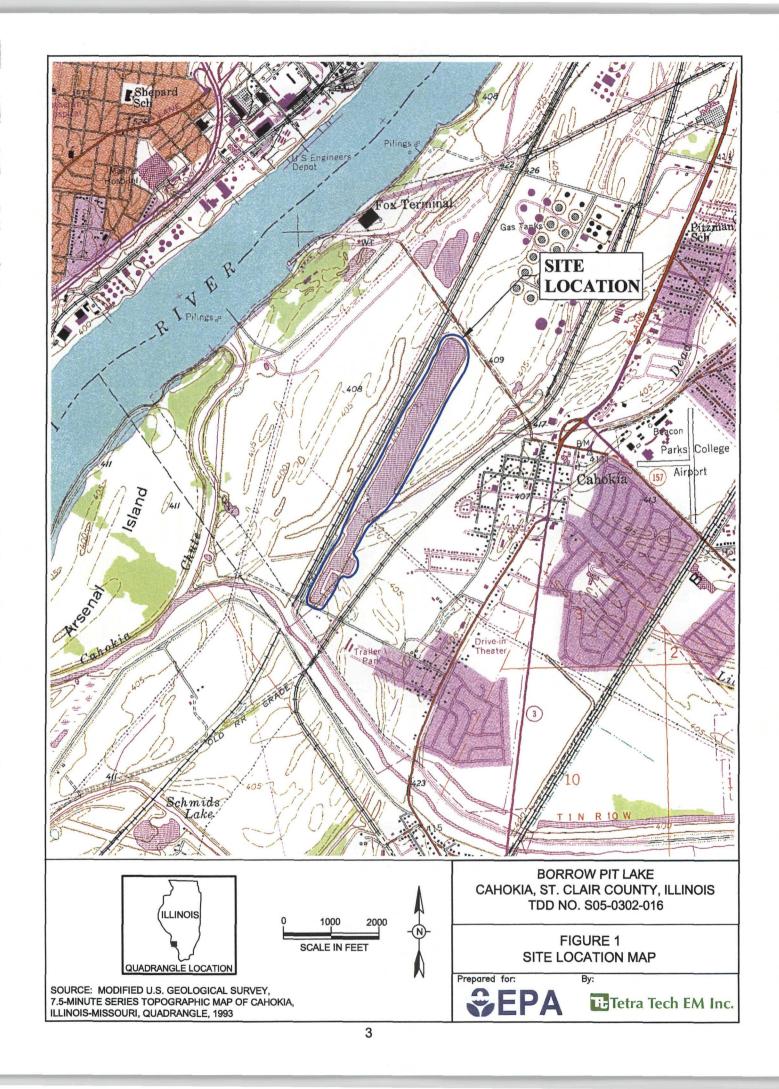
#### 2.0 SITE BACKGROUND

Borrow Pit Lake is located next to Segment F of Dead Creek in Sauget Area 1, Cahokia, St. Clair County, Illinois (see Figure 1). Latitude and longitude coordinates, respectively, for Borrow Pit Lake are 34° 34' 11" North and 90° 12' 06" West.

Ecology and Environment (E&E) conducted a preliminary ecological risk assessment for Sauget Area 1 within the boundaries of Dead Creek Segment F (under TDD No. S05-9703-012). U.S. EPA tasked E&E to determine whether Sauget Area 1 poses an "immediate or long-term ecological risk or if a potential ecological risk exists and perform further evaluation if necessary." On April 18, 1997, E & E and U.S. EPA collected eight sediment samples from Segment F and analyzed them for metals, polynuclear aromatic hydrocarbons (PAH), polychlorinated biphenyls (PCB), total organic carbon (TOC), pesticides, and dioxins. Data collected during the E&E sampling event led to the conclusions that (1) Borrow Pit Lake sediments may have had "adverse ecological impact" on Segment F based on the presence of mercury, and (2) the sediments required further characterization and assessment to determine actual or potential risks to ecological or human health receptors.

In accordance with the requirements set forth in Administrative Order, Docket No. V-W-99-C-554, U.S. EPA Region 5 approved a time-critical removal action of impacted sediments from the 3.5-mile-long Dead Creek in Cahokia and Sauget, Illinois.

In the fall of 2001, approximately 46,000 cubic yards of impacted sediments were removed from Dead Creek Segments B, C, D, E, and F; Site M, and a lift station sump collection point where Dead Creek discharges into the Prairie du Pont drainage channel. Impacted creek sediments were placed into a Toxic Substances Control Act (TSCA) and Resource Conservation and Recovery Act (RCRA) landfill all compliant with requirements. The cell was constructed along the west side of Dead Creek, Segment B, between Queeney Avenue and Judith Lane. Additionally, the PRPs for Sauget Area 1 were required to submit to U.S. EPA a mitigation plan containing (1) an assessment of adverse impacts to the Dead Creek drainageway and surrounding wetlands and habitat; (2) a plan to provide for the replacement of such wetlands and habitat, if necessary; and (3) an investigation of potential mercury contamination in the Borrow Pit Lake area next to Creek Segment F.



On October 4, 2002, a final mitigation plan was submitted to U.S. EPA Region 5. U.S. EPA Region 5 conditionally approved the mitigation plan, including the Borrow Pit Lake investigation and work plans. Figure 2 shows all proposed sampling locations at the Borrow Pit Lake site as presented in the Borrow Pit Lake sampling plan.

This letter report addresses mercury sampling and investigation activities at the Borrow Pit Lake site on May 6, 7, 8, 9, 12, and 13, 2003.

#### FIGURE 2 (Labeled as 4-1) SEDIMENT SAMPLING LOCATION

Source: Solutia, Inc. 2002. "Dead Creek Sediment Removal Action Mitigation Plan." Figure 4-1, "Borrow Pit Lake Investigation Plan Sediment Sampling Locations." Prepared by URS Corporation for Solutia, Inc. October 4.

#### 3.0 DAILY SITE SAMPLING ACTIVITIES

This section chronologically discusses sediment sampling activities at the Borrow Pit Lake site. On April 29, 2003, START deputy project manager Thomas Binz contacted Solutia, Inc. (Solutia), representative Mr. Richard Williams to provide names of START representatives who required formal access approval to the Borrow Pit Lake site. At that time, mobilization activities were planned for May 5, 2003, and sampling activities were planned to begin on May 6, 2003. Solutia's sampling contractor was BBL Sciences.

Because of travel considerations for BBL Sciences personnel and to establish the required surveyed 200-by 200-foot sampling hard grid (including the placement of wooden stakes at sampling points), no sediment samples were collected until May 6. The observed sampling techniques and sampling activities for each day are discussed in the following sections.

#### 3.1 OBSERVED SAMPLING TECHNIQUES

Samples were typically collected by driving a 3-inch-diameter, polycarbonate (Lexan®) tube into surface sediment next to the surveyed sampling point identified by a wooden survey stake. Surface sediment samples were collected in accordance with the U.S. EPA-approved quality assurance project plan (QAPP) for the site as summarized below.

- The Lexan® sampler was advanced into the sediment matrix using a T-handle driver to the desired sampling depth or until sampler refusal.
- Each sample tube was capped and the cap affixed with duct tape to provide an adequate seal.
- The sampler was simultaneously twisted and pulled upwards to extract the sediment column.
- The bottom of the core sampler was capped and sealed with duct tape.
- The date, time, location, depth of penetration, height of the water column (if necessary), and sample depth were recorded.
- All sampler tubes were photographed.

- If necessary, the water column was drained from the sampling tube by drilling small holes above the sediment core.
- Samples were placed on ice prior to sample preparation.

At all odd numbered sampling points, the next deepest sampling interval was also sampled. All samples were field screened for mercury using a Jerome MVA Model 411 screening instrument. Table 1 summarizes positive field screening results. After sample tubes were collected, sample preparation activities were conducted in accordance with QAPP guidance in controlled conditions at the pole barn building on Pitzman Avenue in Sauget, Illinois. Sample tubes were cut with a saw at the appropriate sampling interval, homogenized in stainless-steel bowls, containerized, labeled, double-bagged in Zip-lock bags, and preserved to 4° C in coolers prior to overnight delivery to the designated analytical laboratories.

Battelle Marine Sciences Laboratory in Sequim, Washington, analyzed the samples for total mercury in accordance with U.S. EPA SW-846 Method 7471. Brooks Rand LCC in Seattle, Washington, analyzed the samples for methyl mercury using U.S. EPA SW-846 Method 1630.

On the sample chain-of-custody record dated May 6, 2003, the sample analytical methods for each laboratory were reversed. BBL Sciences field manager Mr. Ronald Kuhn contacted the laboratories and instructed them to use the amended sample analytical method noted on the corrected-chain-of custody record (see chain-of-custody for May 6 and the corrected May 6 record in the appendix).

# TABLE 1 SUMMARY OF JEROME MVA MODEL 411 MERCURY FIELD SCREENING RESULTS

Sample Identification No.	Sampling Interval (feet bgs)	Mercury Concentration (mg/mg³)		
BPL-HGSED-27	0.0 to 0.5	0.004		
BPL-HGSED-17	0.0 to 0.5	0.019		
BPL-HGSED-49	0.0 to 0.5	0.005		

#### Notes:

bgs = Below ground surface  $mg/m^3$  = Milligram per cubic meter

#### 3.2 TUESDAY, MAY 6, 2003

START arrived at the Borrow Pit Lake site at 9:10 a.m. and met with the following representatives:

- Mr. Ronald Kuhn, Field Manager
- Mr. Shawn Skelly, Technician Level 3
- Mr. Thomas O'Rourke, Surveyor
- Mr. Steve Truchon, Project Manager

BBL Sciences briefed START on surveying and sampling activities completed to date. The BBL Sciences survey crew was laying out the 200- by 200-foot grid and using wooden stakes to mark sampling points. Other BBL Sciences members were collecting sediment samples using the manual sampler. Table 2 summarizes the sediment samples collected on this day.

Borrow Pit Lake contained 0.5 to 2.0 feet of standing water in the area to be sampled. Rising water from the Mississippi River invaded the Dead Creek channel where low-flow discharge typically occurs into the Prairie Du Pont Drainage Channel (Cahokia Canal). Recent seasonal rainfall events and rising river elevations often create a rapid change in Dead Creek elevations, and because Borrow Pit Lake is a section of Dead Creek, hip waders were required during sediment sampling activities. As a contingency plan, Ron Kuhn indicated that samples would be collected from a small boat if hip waders did not provide sufficient protection from rising water.

BBL Sciences completed sample collection activities by 12:27 p.m. At 12:57 p.m., BBL Sciences representatives transported all samples collected to the pole barn building for containerization and preparation for delivery by Federal Express to the analytical laboratories.

TABLE 2
SEDIMENT SAMPLES COLLECTED ON MAY 6, 2003

Sample Identification No.	Sample Interval (feet bgs)	Analysis for Total Mercury	Analysis for Methyl Mercury
BPL-HGSED-02	0.0 to 0.5	Yes	Yes
BPL-HGSED-03	0.0 to 0.5	Yes	Yes
BPL-HGSED-03	0.5 to 1.6	Yes	Yes
BPL-HGSED-04	0.0 to 0.5	Yes	Yes
BPL-HGSED-06	0.0 to 0.5	Yes	Yes
BPL-HGSED-08	0.0 to 0.5	Yes	Yes
BPL-HGSED-10	0.0 to 0.5	Yes	Yes
BPL-HGSED-11	0.0 to 0.5	Yes	Yes
BPL-HGSED-11	0.5 to 1.15	Yes	Yes
BPL-HGSED-12	0.0 to 0.5	Yes	Yes
BPL-HGSED-13	0.0 to 0.5	Yes	Yes
BPL-HGSED-13	0.5 to 0.8	Yes	Yes
BPL-HGSED-15	0.0 to 0.5	Yes	Yes
BPL-HGSED-15	0.5 to 1.2	Yes	Yes

Note:

bgs = Below ground surface

#### 3.3 WEDNESDAY, MAY 7, 2003

START arrived on-site at 7:39 a.m. and observed sampling activities at 15 sampling points along the banks of Borrow Pit Lake. Unfortunately, rising water levels required BBL Sciences to use hip waders to collect samples from areas submerged by 2.0 to 2.5 feet of water. Despite this minor inconvenience, sample collection activities continued according to plan; however, START could only observe sampling activities from along the water's edge. Table 3 summarizes the sediment samples collected on this day.

Sample BPL-HGSED-27 collected on this day from 0.0 to 0.5 foot bgs yielded a positive Jerome MVA Model 411 mercury reading of 0.004 milligram per cubic meter (mg/m³) (see Table 1).

BBL Sciences completed sample collection activities by 11:20 a.m. At 11:33 a.m., BBL Sciences representatives transported all samples collected this day to the pole barn building for containerization and preparation for delivery by Federal Express to the analytical laboratories. Table 3 summarizes the sediment samples collected on this day.

TABLE 3
SEDIMENT SAMPLES COLLECTED ON MAY 7, 2003

Sample Identification No.	Sample Interval (feet bgs)	Analysis for Total Mercury	Analysis for Methyl Mercury
BPL-HGSED-14	0.0 to 0.5	Yes	Yes
BPL-HGSED-16	0.0 to 0.5	Yes	Yes
BPL-HGSED-18	0.0 to 0.5	Yes	Yes
BPL-HGSED-20	0.0 to 0.5	Yes	Yes
BPL-HGSED-22	0.0 to 0.5	Yes	Yes
BPL-HGSED-23	0.0 to 0.5	Yes	Yes
BPL-HGSED-23	0.5 to 1.1	Yes	Yes
BPL-HGSED-24	0.0 to 0.5	Yes	Yes
BPL-HGSED-25	0.0 to 0.5	Yes	Yes
BPL-HGSED-25	0.5 to 1.0	Yes	Yes
BPL-HGSED-26	0.0 to 0.5	Yes	Yes
BPL-HGSED-27	0.5 to 0.8	Yes	Yes
BPL-HGSED-27	0.5 to 1.15	Yes	Yes
BPL-HGSED-28	0.0 to 0.5	Yes	Yes
BPL-HGSED-29	0.0 to 0.5	Yes	Yes
BPL-HGSED-29	0.5 to 0.8	Yes	Yes
BPL-HGSED-30	0.0 to 0.5	Yes	Yes
BPL-HGSED-31	0.0 to 0.5	Yes	Yes
BPL-HGSED-31	0.5 to 1.2	Yes	Yes
BPL-HGSED-32	0.0 to 0.5	Yes	Yes

Note:

bgs = Below ground surface

#### 3.4 THURSDAY, MAY 8, 2003

START arrived at the site at 8:07 a.m. and observed sampling activities at 15 sampling points. BBL Sciences personnel were collecting samples at this time. START utilized hip waders to observe sample collection from an area under 1.5 to 2.0 feet of water. Sample collection activities were completed at 10:33 a.m. At 11:01 a.m., the sampling crew arrived at the pole barn to begin sample preparation activities. Table 4 summarizes the sediment samples collected on this day.

TABLE 4
SEDIMENT SAMPLES COLLECTED ON MAY 8, 2003

Sample Identification No.	Sample Interval (feet bgs)	Analysis for Total Mercury	Analysis for Methyl Mercury
BPL-HGSED-33	0.0 to 0.5	Yes	Yes
BPL-HGSED-33	0.5 to 1.25	Yes	Yes
BPL-HGSED-34	0.0 to 0.5	Yes	Yes
BPL-HGSED-35	0.0 to 0.5	Yes	Yes
BPL-HGSED-35	0.5 to 1.5	Yes	Yes
BPL-HGSED-36	0.0 to 0.5	Yes	Yes
BPL-HGSED-37	0.0 to 0.5	Yes	Yes
BPL-HGSED-37	0.5 to 1.2	Yes	Yes
BPL-HGSED-38	0.0 to 0.5	Yes	Yes
BPL-HGSED-39	0.0 to 0.5	Yes	Yes
BPL-HGSED-39	0.5 to 1.5	Yes	Yes
BPL-HGSED-40	0.0 to 0.5	Yes	Yes
BPL-HGSED-41	0.0 to 0.5	Yes	Yes
BPL-HGSED-41	0.5 to 1.4	Yes	Yes
BPL-HGSED-42	0.0 to 0.5	Yes	Yes
BPL-HGSED-43	0.0 to 0.5	Yes	Yes
BPL-HGSED-43	0.5 to 1.5	Yes	Yes
BPL-HGSED-44	0.0 to 0.5	Yes	Yes
BPL-HGSED-45	0.0 to 0.5	Yes	Yes
BPL-HGSED-45	0.5 to 1.4	Yes	Yes
BPL-HGSED-46	0.0 to 0.5	Yes	Yes
BPL-HGSED-53	0.0 to 0.5	Yes	Yes
BPL-HGSED-53	0.5 to 1.5	Yes	Yes

Note:

bgs = Below ground surface

#### 3.5 FRIDAY, MAY 9, 2003

START arrived at 6:51 a.m. at the southern end of the Borrow Pit Lake site. Because of travel considerations for BBL Sciences representatives, samples were collected from only six sampling points on this day. Sample collection activities were completed at 9:30 a.m. At 9:47 a.m., the BBL Sciences sampling crew arrived at the pole barn to begin sample preparation activities. Table 5 summarizes the sediment samples collected on this day.

TABLE 5
SEDIMENT SAMPLES COLLECTED ON MAY 9, 2003

Sample Identification No.	Sample Interval (feet bgs)	Analysis for Total Mercury	Analysis for Methyl Mercury		
BPL-HGSED-54	0.0 to 0.5	Yes	Yes		
BPL-HGSED-55	0.0 to 0.5	Yes	Yes		
BPL-HGSED-55	0.5 to 1.5	Yes	Yes		
BPL-HGSED-56	0.0 to 0.5	Yes	Yes		
BPL-HGSED-57	0.0 to 0.5	Yes	Yes		
BPL-HGSED-57	0.5 to 1.5	Yes	Yes		
BPL-HGSED-58	0.0 to 0.5	Yes	Yes		
BPL-HGSED-59	0.0 to 0.5	Yes	Yes		
BPL-HGSED-59	0.5 to 1.5	Yes	Yes		

Note:

bgs = Below ground surface

#### 3.6 MONDAY, MAY 12, 2003

Because of travel considerations for BBL Sciences personnel, START arrived at the site at 9:36 a.m. Over the weekend, water levels had dropped enough to allow easier access to sampling points. Four points were sampled on this day. Sample collection activities were completed by 1:00 p.m. At 1:24 p.m., the BBL Sciences sampling crew arrived at the pole barn to begin sample preparation activities. Table 6 summarizes the sediment samples collected on this day.

TABLE 6
SEDIMENT SAMPLES COLLECTED ON MAY 12, 2003

Sample Identification No.	Sample Interval (feet bgs)	Analysis for Total Mercury	Analysis for Methyl Mercury		
BPL-HGSED-01	0.0 to 0.5	Yes	Yes		
BPL-HGSED-01	0.5 to 0.9	Yes	Yes		
BPL-HGSED-05	0.0 to 0.5	Yes	Yes		
BPL-HGSED-05	0.5 to 1.5	Yes	Yes		
BPL-HGSED-07	0.0 to 0.5	Yes	Yes		
BPL-HGSED-07	0.5 to 1.4	Yes	Yes		
BPL-HGSED-09	0.0 to 0.5	Yes	Yes		
BPL-HGSED-09	0.5 to 1.5	Yes	Yes		

Note:

bgs = Below ground surface

#### 3.7 TUESDAY, MAY 13, 2003

START arrived on site at 7:33 a.m. and observed sampling activities at 11 sample points. BBL Sciences personnel collected a total of 11 samples by 10:00 a.m. Receding water allowed easy access to all sampling points. Table 7 summarizes the sediment samples collected on this day. BBL Sciences sampling crew arrived at the pole barn to begin sample preparation activities at 10:17 a.m.

The sample from BPL-HGSED-60 was collected using a hand auger because the presence of rock and gravel impeded advancement of the Lexan® sampler. The rock and gravel appeared to be non-native fill materials. How and when the non-native fill materials were placed is unknown. This was the only location where the sample was not collected by using the Lexan® sampler.

The sample from BPL-HGSED-17 from 0.0 to 0.5 foot bgs yielded a positive Jerome MVA Model 411 mercury reading of 0.019 mg/m<sup>3</sup>, and the sample from BPL-HGSED-49 from the 0.0 to 0.5 foot bgs yielded a positive reading of 0.005 mg/m<sup>3</sup> (see Table 1).

Sampling activities were determined to be complete on this day, and START was informed that after sample preparations, BBL Sciences would demobilize from the site. START departed from the site without observing demobilization activities.

TABLE 7
SEDIMENT SAMPLES COLLECTED ON MAY 13, 2003

Sample Identification No.	Sample Interval (feet bgs)	Analysis for Total Mercury	Analysis for Methyl Mercury
BPL-HGSED-17	0.0 to 0.5	Yes	Yes
BPL-HGSED-17	0.5 to 1.2	Yes	Yes
BPL-HGSED-19	0.0 to 0.5	Yes	Yes
BPL-HGSED-19	0.5 to 1.5	Yes	Yes
BPL-HGSED-21	0.0 to 0.5	Yes	Yes
BPL-HGSED-21	0.5 to 1.3	Yes	Yes
BPL-HGSED-47	0.0 to 0.5	Yes	Yes
BPL-HGSED-47	0.5 to 1.45	Yes	Yes
BPL-HGSED-48	0.0 to 0.5	Yes	Yes
BPL-HGSED-49	0.0 to 0.5	Yes	Yes
BPL-HGSED-49	0.5 to 1.35	Yes	Yes
BPL-HGSED-50	0.0 to 0.5	Yes	Yes
BPL-HGSED-51	0.0 to 0.5	Yes	Yes
BPL-HGSED-51	0.5 to 1.2	Yes	Yes
BPL-HGSED-52	0.0 to 0.5	Yes	Yes
BPL-HGSED-60	0.0 to 0.5	Yes	Yes

Note:

bgs = Below ground surface

U.S. EPA Region 5 approved a time-critical removal action of impacted sediments from the 3.5-mile-long Dead Creek in Cahokia and Sauget, Illinois. Late in 2001, approximately 46,000 cubic yards of impacted sediments were removed from Dead Creek Segments B, C, D, E, and F; Site M; and a lift station sump collection point where Dead Creek discharges in the Prairie du Pont drainage channel. The site PRPs were required to submit to U.S. EPA a mitigation plan that included an investigation of potential mercury contamination in the Borrow Pit Lake site located next to Dead Creek Segment F. On October 21, 2002, U.S. EPA Region 5 conditionally approved the mitigation plan, which contained a work plan for sediment investigation of potential mercury impacts at the Borrow Pit Lake site.

Starting on May 6, 2003, a total of 60 sampling points were surveyed and marked with wooden survey stakes as part of a 200- by 200-foot sampling grid at the site. Samples were collected from May 6 through 13, 2003. During initial sample collection activities, rising water levels required use of hip waders. However, water levels dropped during the final days of sample collection activities.

Samples were collected by driving a 3-inch-diameter Lexan® tube into surface sediment next to the surveyed sampling point. Field samples were then collected, screened for mercury using a Jerome MVA Model 411 screening instrument, temporarily placed on ice, and delivered to the pole barn building were they were homogenized, containerized, labeled and preserved at 4°C for overnight delivery to the analytical testing laboratories. Battelle Marine Sciences Laboratory in Sequim, Washington, was contracted to analyze the samples for total mercury in accordance with U.S. EPA SW-846 Method 7471. Brooks Rand LCC in Seattle, Washington, analyzed the samples for methyl mercury using U.S. EPA Method 1630.

During sampling, the following three samples yielded positive Jerome MVA Model 411 mercury readings:

- BPL-HGSED-27 from 0.0 to 0.5 foot bgs; mercury reading of 0.004 mg/mg<sup>3</sup>
- BPL-HGSED-17 from 0.0 to 0.5 foot bgs; mercury reading of 0.019 mg/mg<sup>3</sup>
- BPL-HGSED-49 from 0.0 to 0.5 foot bgs; mercury reading of 0.005 mg/mg<sup>3</sup>

At this time, sample results are pending. No further action is expected under TDD No. S05-0302-016.

#### APPENDIX

SAMPLE CHAIN-OF-CUSTODY RECORDS

(25 Sheets)

10/1

### SAMPLE CUSTODY RECORD

	MPLE CUSTODY # MSL-A-001 & MSL-A-00	02)				Date;	5/6/03	Putti	attelle ng Technology To Work	
	Project Name: SoLuri		E SCOMFOT	- SAAA/	1	Tool D	arameters	<del></del>	nwest Division nces Laboratory	
	Project Manager:	DOMESTICANS		-{		Test Pi	arameters	<del></del>	Sequim Bay Road	
	Thore realiber	1381 381200		ا ي <u>ع</u> ا		$Y \mid$		13	• •	_
	Shipment Method: 1606 Preservation: 40	x#: 837 25 C	45 314	Containers	METHYLME RURY USEPA 1630	MED		SPORE IN CHANGE!	Shington 98382 BEUDALASORA S SAVALISIS TO BOLD SWEHL - 747	1>103e1700
		Collection		] <u>a</u> [	EX	18.34				
nе	Field Sample ID	Date/Time	Matrix	o Z	\$ 3			Laboratory ID	Observations/Comm	ents
	BPL-H65817-26-05	1 5/6/63 1005	SEA	1		J				
2	KPL-146FD-03(0.0.5)		Sto	1	X					
	BPL-HISED-03(0.5.16)		SE()	)	$X_{\perp}$					
\$	RAL-1458D-0410-0-5	5/6/03 1046	かり	12	X	X				
5	BFL-HGSED-101(0.05)	5/6/03 1230	250		X				BPL-HGED-04 (0-05)	7
	APL-H5&D-06/003	5/6/03 1150	SEA	1	$X_{-}$					
7	RN-HGFD-08(0.05)	5/6/03 1110	SEA	1	X					
 3	RPL-HISED-10(0:05)	5/6/03 1185	SED	17	X					
	RPL-HGSCD-11(0-0.5)	5/6/03 1170	SED	1	X				<del></del>	
	RX-H65-D-11(0.5-1.15)		SED	17	X					
1	BM.H6XD-12(0-05)	5/6/03/11/5	SKO	12	X	X				
2	AR-HSED-13(0-0-5)	5/4/23 1155	240	1	TY					
	PAR-H6SED-13(05-08)		SED	1	V					
	BN-H65ED-15(0-05)		次の		X					
	BL-1465ED-15(15-12)		SEA	1	X					
6	171-165ED-71	7/4/03 1600	HEO	7	X				(ROA BLACK )	APPENDENT LA
	Relinquished By: Auto ()	Company:	<i>B</i> 8(			Received	Ву:	Company:		13220000 103
	I ^ .		5/1.103	205						
	Ron/A/A D K, 4M) Signature/Printed Name		Date/Time	700	1	Signature	e/Printed Name		Date/Time	
					<u>-</u>					
	Relinquished By:	Company:			-	Received	1 Ву:	Company:		
	Signature/Printed Name		Date/Time		]	Signatur	e/Printed Name		Date/Time	

Distribution: White - Laboratory Project Files - Valley 1 1

Rev. 020102COC

## **SAMPLE CUSTODY RECORD**

Project Name: SOLUTIA - BOOKOW FOT LAKE SUDJUECT SAMPLY

(SOP# MSL-A-001 & MSL-A-002)

... Putting Technology To Work Pacific Northwest Division

Project Manager: MAND LADANE			Test Parameters				rs	Marine Sciences Laboratory		
Phone Number: (110) 275-1305								•	t Sequim Bay Road	
Shipment Method: 1000 Preservation: 1000	x#: 837/25	45 314	of Containers	METHY IME RURY	(MS)			Sequim, V	Vashington 98382	
Field Sample ID	Collection Date/Time	Matrix	No. of	METHY	13.14			Laboratory ID	Observations/Con	nments
8/2-145512-12/005	3/6/63 1005	350	11.	X						
RPL-1467ED-03(0.05)	5/6/03 1025	Sex	1	X						
KPL-14-SED-036-546	> 5/16/03 1025	560	11	X						
BM-1656D-046-65		X-0	12	X	X					
BPL-H65ED-61(0.05)	5/6/03 1230	30	1	<u> x</u>					BPL-HGED-04 (D-0	2.)
APL 145-80-0660 05	5/6/03 1050	SED	11.	X						
AN-1451D-08(0.05)	5/6/03/110	26.50	1	X						
ML-HEED-101005)	5/6/03 1135	SEQ	1/	X						
W.C. 46500-110-0-5	5/11/03 1120	SED		X						
1917-145-ED-11(0-5-115)	5/6/03 1120	SED	1/	上					·	
BPU-16820-15(0-05)	5/6/03 1145	260	12	X	$X \perp$					
1881-188ED-13(0-0.5)	5/4/13 1155	250		11	, i					
AR 4650-13(05-08)	5/6/15/155	<b>AE</b>	1	X						]
BAL-HGSED-15(0-05)	5/4/03/205	SED		Ì						
BL-HUSED-ISUS-12	5/6/03 1205	SEA	1	X						
かしからしてり	5/6/03 1600	1480		X					(LINA BLANK	TA LARCES
Relinquished By:	Company:	BBI		}	Receive	d By:		Company		
Signature/Printed Name		5/2/03 Date/Time	1200	-	Signatur	re/Printed t	Name		Date/Time	
Signature/Filinted Name		Date ( ) inte		_1	Signatur	en-mined t	1401116		Date/ Hitte	

Date/Time

Page

Company:

Date/Time

Company:

Received By:

Signature/Printed Name

Signature/Printed Name

Relinquished By:

# Brooks Rand LLC Chain Of Custody Record Solutia - BURROW PIT CAKE SEDIMENT SANDLING Page of 2

Client: BBL	En	nail addres					Chin to:	Brooks Da	ndIIC
Contact: DAVID LUBINH.		PO #: 102.94.001 // //					Ship to: <b>Brooks Rand LLC</b> 3958 6 <sup>th</sup> Avenue NW		
Address:	THE RESERVE THE PERSON NAMED IN	Sampler's signatures:						Seattle, W	The state of the s
		pior o oig	2.10.01		THE THE LIE				6-632-6206
BLASIAD, BOICK; LEE	Fa	x COC for	recei	ot confi	rmation	? (Y (N)	7 3		6-632-6017
Phone #:(410) 295 - 1205	THE RESERVE THE PERSON NAMED IN COLUMN 1	ient project				1. (1.)			@brooksrand.com
Fax #:		RL project I							srand.com
For BRL use only Cooler temp (°C):	PROPERTY AND ADDRESS OF THE PROPERTY ADDRESS OF THE PROPERTY AND ADDRESS OF THE PROPERTY ADDRESS OF THE PROPER		The state of the state of		THE PERSON NAMED IN COLUMN TWO IS NOT THE	ody seals	intact? ( Y )	N) Date:	
Collection		llaneous		ld Prese	Tool Bullionship		Analyses		Comments
Concuent	111300		110	1 7030	1 1		- Indiyoco i		Comments
		Z	>						
		\rangle '.	e only						
	(m)	erec	ice			3			
Sample ID	Itiak	ers d filt	dor		[2	153			
	in pe	of containers ample field fill	No.		) oed	\$1	3		1 10
	pler x ty	con	ese	6	r (s	1 2 1	0		
Date	Sampler (initials) Matrix type	# of containers Sample field filtered ,Y/N	Unpreserved	HO I	BrCl Other (specify)	TOTAL MERCA	6		
	0,	# 07	-	T   T	ш	F-3			
1 BA-HOSED-02 (U-05) 5/16/12 1105	ROK SEL		X		-	1			
2 RM-HGSD-03 (0-05) 5/6/03 11725 3 RM-HGSED-03 (05-16) 5/6/03 11725	RUK SET		\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\			13			
4 AA-465ED-05(0)-1-6 5/6/0 1025			X			XX			
5 BPI-165ED-61 (0-0-5) 5/6/03 1730	PN SIN		X			X	1		BUND DA OF BOK- HOSEO - 04 (8-0-5')
6 RPL-1468D-06 (0-0-5) 5/6/08 1050	RDK SET		X			X			ppa-now vitevs,
7 BPL-HGSD-08(0-0-5) Stolo3 1110	PLUC SEC		X			N			
8 BA-1682-10 (0.0.5) SIGNR 1135	NOK SEV		X			2			
9 BAC-HESED-11 (0-05) STUTUS 1120			X			$\alpha$			
10 BPL-HEED-11 (05-15) Shape 120	PAY SEE	SED 1 X							
Shipping carrier: FEDEX A: 8371	2545 3							# of co	oolers:
Relinquished by: fourses )//	Date: 5/6		200	Received	d by:	An Lind		Date	e: Time:
Relinquished by:	Date:	Time:		Herceiwa	d at BRIL:			Dau	el Miner

White: LAB COPY

SOLUTIA-BURROW PIT LAKE SELDIMENT SAMPLING

# **Brooks Rand LLC Chain Of Custody Record**

Page 2 of 2

Client: BAL	ient: RAL				ail ad	ddress	s:				,	7	18	Ship	to: B	rool	ks R	and	LLC		
Contact: DAVID ( LAUDIC	7					107.9	7/		11	7	11	1						nue N		5	
Address:						's sig	Jens .	· 11	1							98107					
Contact: Davis Librille Address: BUSIALD, BOINE; L	FF			1					10	- Contraction	17						ne: 20	06-63	32-62	206	•
												(Y /1	A)-			Fax:			32-60		
Phone #: (410) 295-1205	_			Clie	ent pro	roject	t ID:	100	2.94.	001		4								srand.c	com
Fax #:				BRL	L proj	ject II	ID:	RR	31_0	106									and.co		
For BRL use only. Cooler (	emp (°	C):	100 mm	Custo	dly se	als pi	resen	(8°) (1)	Y/N)	C	usto(	dly seta	als int	act?	(Y/1	V).	Date	2/5		lnit	ilals:
,	Collec	ction	M	liscella	aneou	IS	Fi	ield Pi	resei	rvatic	on		A	nalys	ses re	quire	ed		I	Comn	ments
Sample ID	Date	Time	Sampler (initials)	Matrix type	# of containers	Sample field filtered ,Y/N	Unpreserved or ice only	HNO <sub>3</sub>	HCI	BrCl	Other (specify)	TOTAL MERCAS	115/4NS)								
1 BAL-46SED-12(0-05)	5/6/02			< N	2		X					X	X					T			
2 BPL+16SED-13(0-05) 3 BPL-146-SED-13(0-05)	S/lelo3	1155	DOK	TO			X			-	-	X	$\overline{}$		-			+	+		
4 BAC-HESED-15(0-0.5)				30			X			<del></del>	-	₹ I						+	+	***************************************	
5 BPI-HESED-15/05/12							X			1	1	R						1	1		
6 BAY-H6SED-71	5/6/03						X					X						T	PIN	SE PSIA.	OIC *AXE
7					1																Plan BI
8										1										1	
9																			1		
10																					
Shipping carrier: HOEX	8371	254	A CONTRACTOR OF THE PARTY OF TH	4 4												#	# of c	coole	ers:		
Relinquished by: Roulling	1	····.	A CONTRACTOR OF THE PARTY OF TH	5/40	3 Tim	ne: /\	Or	Rec	eived	by:			i de la fai				Da	ate:		Tim	ie:
Relinquished by:	1 112		Date:	-, -	Tim	ne:		Ficis	jaliwaje	G(  8)	f(L)						Die	kal(e)		Tillin	el

White: LAB COPY

# Brooks Rand LLC Chain Of Custody Record Solution - BORROW PIT LAKE SEDIMENT SAMPLING Page of 2

Client: BBL														Ship to: Brooks Rand LLC					
Contact: DAVID LUBLIH				-		102.9				//		11			39	58 6	th Ave	nue N	IW
Address:				San	npler	's sig	natu	res:	1	1/2/10	11/	11/	-					9810	
BLASIAD, BOUCE; LET	-													Phone: 206-632-6206					
				Fax COC for receipt confirmation? (Y (N))									1))			ix:		632-6	
Phone #:(410) 295 - 1705	5																srand.com		
Fax #:			accommon continuos, acom	BRI	_ pro	ject I	D: <i>K</i>	BL	20 E						W	d.ww	rooks	rand.c	om
For BRL use only   Cooler t	emp (°	(C));		Queto	લીંગ કલ	લીક (ગ	(คระคก	17 ( Y	2/(N)	(0)	) ଜ୍ଞାନ	ीं अंध	ls inte	ભાજ (	Y//N)	)   [	)alter		anital .
	Colle	ction	M	iscella	neou	ıs	Fi	eld P	resei	vatio	'n		A	nalyse	s requ	uired	n en francisco abbretos y como a		Comments
Sample ID	Date	Time	Sampler (initials)	Matrix type	# of containers	Sample field filtered ,Y/N	Unpreserved or ice only	HNO <sub>3</sub>	HCI	BrCl	Other (specify)	TOTAL MERCIEY	NSMSV			1		state 1/00/10 Squigs	6 1700 8 MM4565 TE 4/1000000 4 1650
1 BAL-HUSED-02 (0-0.5)	5/10/02	1105		SED	1		X					X							
2 RAL-HG &D-03 (0-0.5')	5/12/03	1025	ROK	SEA	1		X					X							
		1025	ROK	342	1		X					X							
4 AA-H65ED-04(0-0.5)			RIK	SEV	2		X					X	X						1000
	1, 1	1730	ROK	SIT	1		X					X						BA	- HOSED-04 (8-0-5)
		1050		SED			X					X							
7 BPL-H6550-08(0-0-5)	5/6/03	IIIn	-	SFO	1		X					K	-			_			
8 RA-H670-10 (0-0.5)	deli		MIK	SEV			X					2	_	-		-	_		
	Slolos		RUSK		1		X					a					36		
10 APL-HASED-11 (05/15)	STREET, SQUARE,	September 1997	PAY	SAD	1		X					X							
Shipping carrier: FEDEX	H: 8	3371	2545	3/16	13											# 0	of coo	lers:	
Relinquished by: Fourier	)/h			:5/6/	1	ne: //	0	Rece	eived	by:							Date:		Time:
Relinquished by:	,	7.	Date	:	Tin	ne:		Rea	ગોજસંદ	ह्यों है।	AL.						(લી)સવી		Tillmer P. 2

White: LAB COPY

# SOLUTIA-BORROW PIT LAKE SEDWENT SAMPLING

# **Brooks Rand LLC Chain Of Custody Record**

Page 2 of 2

Client: BAL		Ema	ail ad	dres	s:		7				1	Ship			s Ra					
Contact: DAVIS LUDWIG					02.9				11		11							e NW		
Address:			Sam	npler'	s sig	natu	res:	14	and a	21	1		Seattle, WA 98107							
Address: Blashas Boxic; Let			Fay COC for receipt confirmation 2 (V / Mt)										Phone: 206-632-6206 Fax: 206-632-6017							
Phone #: (410) 275-1205			Fax COC for receipt confirmation? (Y / N)									2)			ax:				nd.cor	
Fax #: (910) 215 1205			Client project ID: 102 94.00 1  BRL project ID: RRL 006										W 2744					oksra id.con		n
BANKS OF THE STATE			MINE STATE	VENEZIE SIES	CONTRACTOR		PROPERTY OF THE PARTY OF THE PA	DESCRIPTION OF THE PARTY.	STATE OF THE PARTY OF		0			PACE DOCUMENT		TOTAL CONTRACTOR	CONTRACTOR OF	id.com	HIPE SERVICE	
For BRL use only   Cooler temp (		and the	Custo	AND WATER OF THE PRINTED FOR	John Williams		ear anni ann ann an Taola	Section Section 102	deric become		ily sea			en in subsection become to		4.842			imilials	
Colle	ction	Mi	scella	neou	s	Fi	eld P	resei	vatio	on		A	nalys	es re	quire	d		C	ommen	its
Sample ID	Time	Sampler (initials)	Matrix type	# of containers	Sample field filtered ,Y/N	Unpreserved or ice only	HNO <sub>3</sub>	HCI	BrCl	Other (specify)	TOTAL WERLEY	115/UNS)		/	/			-	SIMS & 1700 CHANGE ANNES TO	METHIMERULY USEDA 1630
1 BAL-HGSED-12(0-0.5) 5/6/03	1145	PAK.	NA>	2		X					X	X								
2 BPI-H6SED-13(0-05) Shows	1155	DAK	SFA	1		X					X									
	. 1155	DOK	The	1		X					X		_							
4 BA-H6SED-15(0.0.5) 5/6/1	1205		30	1		X	-		-		X		-							
5 BPL-HESED-15/05-12) 5/11 6 BPL-H6SED-71 5/1/63		PAK	HOO.	-							X		-					N ==	0	4
7	1400	10m	HEL			IX.					IX									*AXEN
8				- 1											7.79			10 10	115 OF DE	Alle
9																			-	
10													10	1						
Shipping carrier: HOEV 837/	254	5 31	03												#	of co	oler	s: 1		
				te:5/405 Time: 100 Received by:									i de de		Date	e:		Time:		
Relinquished by: Date				: Time: Requived at BRL Date:										Times						

White: LAB COPY

## SA

_	MPLE CUSTOD	A 22	and the state of	局	Date:	3/1/03	<del></del>	Battelle Putting Technology To Work Pacific Northwest Division					
	Project Manager: // Apr	A-FOLKOW PITLAKES	EDIMENUT SAI	MARCHUR.		Test	Parameters		Marine Sci	ences Laboratory			
	Phone Number: (4)0  Shipment Method: Ferreservation:	· · · · · · · · · · · · · · · · · · ·	5 34360	No. of Containers	16 B. W.	MS/MED				Sequim Bay Road /ashington 98382			
Line	Field Sample ID	Collection Date/Time	Matrix	No. of	MENTALE IN	KSEV		L	aboratory ID	Observations/Comments			
		shlo3 0730	SED		<u>X</u>					BL. as Australia			
	BAZ-HGSED-62(0-0-5)	5/20 E30	360	11_	$X_{-}$					BUND DUPLIED OF BPL-HUSED-14 (0-0.5)			
	RM. HSFD-16(0-0.5)	shls 075	502	2	X.	X							
	RPL-H6SED-18(0.0.5)	3/3/03 67/5	80	11	$X_{-}$								
	BA-1465ED-20(005)	5/5/123 0900	StD	11	$X_{-}$				<del></del>				
	BH-1465ED-22(0.0.5)	5/7/03 08/5	XO	11	X_				·				
7_	81-165ED-23(0-05)	51/103 0730	350	11_	X								
88	MC-H65ED-23(0.5-11)	5/2/3 0880	2 <del>4</del> 2	,2	X	X			·				
9	AR-H550-21(005)	Shlu3 1030	TED		$\lambda$								
10	MI-165-10-25(0-05)	SHUS 08/10	SEA	1	X								
11	M-1650-5(05-16)	5/2/03 08/10	SED		X								
12	APL-1467ED-26 (0.05)	s/1/03 1705	75A		X								
	ANC-1469ED-27(0-0-5)	SMUS 0940	(SF2)	1	X								
14	AR-146 TeD 2760-5-115	SHAS OND	2657	1	X								
15	BY-11632 D-28(0-0-5)	15/103 0925	500		K								
	Relinquished By: RUNDALD K	Company:	186( 5/2/3 17	200		Receive	ed By:		Company:				
	Signature/Printed Name		Date/Time	<u> </u>	]	Signatu	re/Printed Name			Date/Time			
	Relinquished By:	Company:		·— ···		Receive	ed By:		Company:				

Date/Time

Date/Time

Signature/Printed Name

Signature/Printed Name

2012

SAMPL	.E (	CU	IST	ODY	REC	ORD
-------	------	----	-----	-----	-----	-----

(SOP#

MSL-A-001 & M	SL-A-002)		12 5		1405
Project Name:	OLON-POROUS POTATE SERVENT	SANALI	100		
Project Manager:	DAUD L. Ausil			Test Para	ameters
Phone Number:	(9/v) 295-1205		_3		

Date: 5/1/12

. . . Putting Technology To Work Pacific Northwest Division Marine Sciences Laboratory 1529 West Sequim Bay Road Sequim, Washington 98382

Date/Time

	Preservation			- 5	是华					
Line	Field Sample ID	Collection Date/Time	Matrix	No. of	The the	SMISIM			Laboratory ID	Observations/Comments
1	BR-1650-0(003)	shb5 0715	25-20	11	X					
	ME-HISED-2110508		SEA	11	X					
	BN-1455ED-30(0-05)		F()	1)	X					
	APL-1465ED-63(00%)		500	1/	X					BIL-H6SED-30 (0-0.5')
	MI-145-50-31 (00-5)		マム	1	$X_{-}$					
	BX-1457D-31(05-12)		ZED		X					
7	PDL-145417-32 (0-05)	5/1/13 100	一支の	2	X	X				
8	PPL-145/KD-72	5/5/03 /600	175		N					PUTE PARK PARENTON
9										BOTHEROLD FALLARSIANA
10					<u> </u>					
11					<u> </u>					
12					<u> </u>					
13								_		
14										
15	А				<u> </u>	<u> </u>				
	//									
	Relinquished By: King & Color	Company:	THE.			Receive	d By:		Company	:

Relinquished By:	Company:		Received By:	Company:	
Signature/Printed Name		Date/Time	Signature/Printed Name	Date/Tir	me

DUD

Signature/Printed Name

## **Brooks Rand LLC Chain Of Custody Record**

Page of 3

Client: RR/	nail addres						Brooks Rand LLC						
Contact: NAVID LUDIUIL			7.94.				1/		3958 6 <sup>th</sup> A				
Address:	Sa	mpler's si	gnatu	ires:	Thous	1168	1		Seattle, V				
BLASIAWA, BOUR: LEE	_	2001					0.4.6.00	Phone: 206-632-6206					
		x COC for					(Y (N))			06-632-6			
Phone #: (410) 295-1205		ent projec				1				srand.com			
Fax #:	THE RESERVE THE PARTY OF THE PA	RL project	107 TRACE TO THE REAL	STATE OF THE PARTY OF THE PARTY.	TARKET WORLD BEEN	MINISTER STORY	SUBSECTION CONTROL VICTOR		www.broo	ksrand.d	om		
For BRL use only   Cooler temp (*C):	બાહ્ય	ભાગ કલ્ફોકા	uesai	18 (Y)	(M)) (	ଠାଣ୍ଡା	ો સાજ્ય પ્ર	naer (Y/	N) Date		initals:		
Collection	Misce	llaneous	Fi	eld Pre	eservat	ion		Analyses r	equired		Comments		
Sample ID Time	Sampler (initials) Matrix type	# of containers Sample field filtered ,Y/N	Unpreserved or ice only	HNO <sub>3</sub>	HO!	Other (specify)	ESTATION AMERICAN METHINGS METHINGS OF MET	O Sold Onl					
1 RN-HSFN-14 (0-05) 5/103 0730	PIK SET		X				X	1.2					
2 RAY- 4647-62 (D.O.S.) 1 1730			X				X			BA	- 46-80-14 (0-0.5)		
3 API-HOSEN-110(0-05) 075		12	X				XX						
4 BM- 1464D-18(0-05) OXK		11	X				X						
5 AN-146SEN-20(0.05) 08m		li l	X				X						
46 BX-1458-15-27(0.05) 085		111	X			-	X						
7 Rd. H65ED-23(0-05) 08ED			X			-	X	-					
-8 PM-465475-73(05-4) 1830		12	X			-	XX	-					
9 RN-H64D-24 (005 1030			X			-	X						
40 RO-1465ED-25(0-0-5) V CRYD	1/1/		X				X						
Shipping carrier: FENEX # 8371 8	5K 3/6	5							# of c	oolers:			
Relinquished by:	Date: 5/	ate: 5/16s Time: 1905 Received by:							Date: Time:				
Relinquished by:	Date:	Time: Received at BRL						Da	(te)	Timer !			

White: LAB COPY

Page 2 of 3

Client: RB(				Ema	il addı	ress:				1			Ship to					
Contact: DAVID LUDWIG				PO :	10	19.50			/	//	11							V
Address:				Sam	pler's	sign	atu	res:	1/2	ani l	11	~		Se	attle,	WA 9	8107	
BLASINA, BOUR:	1										1			and the state of t			06	
				Fax	COC	for re	ecei	pt co	onfir	mati	on?	(Y (N))		Fa	X: :	206-63	32-601	7
Phone #: (410) 275-1205	5				nt proj													
Fax #:				BRL	proje	ct ID:	: B	BL	006				all Subs	WW	w.br	ooksra	nd.co	m
For BRL use only Cooler	temp (	(C));		Quatro	iy seak	s pre:	sani	87 (Y	/N	)   Q	ાલોભ	ીં જમાલિય	તારબંજ ()	(/N)	D)s	ite:		Inflets.
	Colle	ction	M	liscella	neous		Fie	ld P	resei	rvatio	n	•	Analyse	s requ	ired	decimale destination as in the contraction with		Comments
197												-3 2			T		137	
					3	2 .	only					S S S S S S S S S S S S S S S S S S S						
					1							2						
			(S			. 6	Se					45						
Sample ID			tial		SI HIS		do				ify)	计图						
			(in	be	containers	e e	Ne				bec	7						
			oler	×ty	no G	e	ese	0			r (s	1 7						
	Date	Time	Sampler (initials)	Matrix type	# of containers	a	Unpreserved	HNO3	HC	BrC	Other (specify)	CONTRA AN						1.12
	Δ.	F	S	Σ	# 0	0 :	2	I	I	m	0	31						
~1 RDL-HISSED-25(0.5-1.0)	5703		RIX	SED		)	-					X						
CZ API-146SED-Z10(0-0.5)		0905					X	9				X						
3 ADL-1465ED-27(0-0.5)		OYPO					X					X	-				_	
4 BU-146.SED-27(0.5-145)		6940					X					X	-					
5 BPL+1650-78(0-0.5)		0925	$\perp$	$\vdash$		1						X						
6 RD-145XA-29 (0.0.5)		0915	$\vdash$		1		X					X					_	
7 RDL-1465D-71(05-0.8)		095	$\vdash$	H	4		X					K	+-+	-				
8 RDL-H6SED-30(0.0.5)		1105		H	1	- /	X	_				K	-	-	_		RIVA	DIDUATE OF
9 BD-H65ED-63(0-0.5)		1300			1	-/	X					Ŷ -	+-+		-		BA-N	1655D-30(0-0.5)
10 BD- H650-31 (0.05)	-	1055	V	V			~					/						
Shipping carrier: FEDEX #. 8371 2545		1.	125		_			1000					# 01	coole	rs: /			
Relinquished by: Accuse	DR	1	Date	sphis	Time:	120	)	Rece	eived	by:	100000000	Commence of the party	Contract STATES COMM	Total sea	Date: Time:		Time:	
Relinquished by:			Date	:	Time:			Pag	ગાપભાદ	គ្នា នា	14					Delle		Timer

White: LAB COPY

Page <u>3</u> of <u>S</u>

Client: R&L			l addres	s:			Λ			Sł							
Contact: DAVID LIDWIG		PO#	100				//	1	/				mail: brl@brooksrand.com ww.brooksrand.com				
Address:		Samp	oler's sig	natu	res:	Marie	/	//									
BLASING BOOK: LEE						1/40	18	N									
			COC for					on?	(A) (A)	) )		Fax:					
Phone #: (4ID) 295-1265		Clien	t project	ID:	100	7.94.1	100										m
Fax #:			project I	MANAGE CONTRACTOR	IN SUPPLIAN	of Chicago	THE PERSONS				CONTRACTOR A	INCOMES I	TOTAL METERS	and a suppose of the	nd.con	n	
For BRL use only Cooler temp (%	G))	ભાકાના	y seals pi	esen	17 (Y	/(N)	C	1810	dy seak	s intac	19 (Y/	N.)	Date			Initiali	31
Collect	ction I	liscellan	eous	Fi	eld P	resei	vatio	on	3	Ana	lyses r	equire	d		C	omme	nts
Sample ID	Time Sampler (initials)	Matr	# of containers Sample field filtered ,Y/N	Unpreserved or ice only	HNO <sub>3</sub>	딘	BrCl	Other (specify)	TOTAL MERLAN METHYIMPER	MSIMISIO							
1 BPL-1765&D-31(0:5-1.2') S/1/03	1055 PUX	SeD		X					X								
2 BH -HESED-32(0-0.5)	1050	1	2	X					X	X				h-			
3 BPL-HGXD-72 V	1600 V	1750		X					X								
4												-					DB/
5		-		-						-		-			LAS	ORATOR	
6 7											-	-	-				
8		+-+								+	_	-	-		-		
9	_									$\dashv$	_	-					
10									100	$\top$		7.2.0					
Shipping carrier: FEDEX # : 83	7/25/5	3125									1 7 1	#	of co	ooler	s:	-57	
Relinquished by: forward IV		,,,	Time: /	CO	Rece	eived	by:			Date: Time:							
Relinquished by:	Date	9:	Time:		िल्ल	ના/ભા	ai B	B(L)					RIOSE BLANK *, 70 Be PRESEURD (ABORATOR)  of coolers:				

White: LAB COPY

Project Manager: Thurs ( unit)

Phone Number: (Y/O) 775, -1.705

Project Name: School - Kolland Take Stranger Markens

(SOP# MSL-A-001 & MSL-A-002)

Line

3

5

8 9 10

11

Date:	5/8/03	
-------	--------	--

**Test Parameters** 

\*\*Battelle

Pacific Northwest Division

Marine Sciences Laboratory

1529 West Sequim Bay Road

Sequim, Washington 98382

	Shipment Method: From #1.8321 2545 5158 Preservation: Gollection							Sequini, V	vasnington 90302
Field Sample ID	Collection Date/Time	Matrix	No. of	NO CE	CONTEN			Laboratory ID	Observations/Comments
FR-46417-23(0-05)	5/8/03 0750	OX.		X					
M-4070-53/05-12	(3) (0750)	نقة معلى	2	X	X				
P.P.L-A6XD-109(005)	1200			X					BULD DUPULUTE OF BX-14620-23(0-0.5')
PIX-HUXD-34 (0-05)	0300		li	1/					
8H-HUID-35 (0-0-5)	(2)0			$\lambda$					
FAN HUSED-35 (05-15)	) ARYO			Ý					
PIL-HEELD-36 (0-05)	0385			<b>X</b>					
M-10-10-10-10-10-10-10-10-10-10-10-10-10-	0.95			X					
11-HOND-37/05-12	045			X					
MI HUSED-38 (0-0-5)			12		X				
My-115+D-31 (0-05)				V					

Relinquished By: Kuran DK AND	Company:	_ <i>FR</i> (	Received By:	Company:	
Signature/Printed Name		Date/Time	Signature/Printed Name		Date/Time
Relinquished By:	Company:		Received By:	Company:	
Signature/Printed Name		Date/Time	Signature/Printed Name		Date/Time

005

0355

Rev. 020102COC

FM-1401D 41 (0-05)

#### SAMPLE CUSTODY RECORD (SOP# MSL-A-001 & MSL-A-002) ... Putting Technology To Work Project Name: ShinA - BURIND PIT LAKE THOWART SANDING Pacific Northwest Division Project Manager: /Aus Lunuid Test Parameters Marine Sciences Laboratory Phone Number: (410) 275 - 1205 1529 West Sequim Bay Road No. of Containers Sequim, Washington 98382 FLAGER B37/2515 3158 もできょうない Shipment Method: Preservation: 0000x Collection Date/Time Field Sample ID Matrix Line Laboratory ID Observations/Comments 5/8/03 SEL RM. HEEN-421005 1580 BM-168D-13(005) 030 BN-464D-4505-15 0/1 BICHURD-YYLOOS IOD BLUE DIPLIME OF. BX-HSSED-YYLO-0.5 BALHUSUD-65(005 1300 BA-16XD-15/005 Mit BPL- HEXD- 45105-19 OMM-ALXED-46 LOOK CHIK M-4500-336005 1015 EN-1464D-53(1154 1115 LOVE PLANTE AX-HISA-23 1400 11 MY HELD ? 165 R. A. Pandy 1-130 12 13 14 15 Relinquished By: Kan O Kith Received By: Company: Company: Signature/Printed Name Date/Time Signature/Printed Name Received By: Company: Relinquished By: Company:

Signature/Printed Name

Date/Time

Distribution: White - Laboratory Project Files

Date/Time

Rev. 020102COC

Signature/Printed Name

Page\_\_\_of\_3\_

Client: RBL			address											
Contact: (AUID LUDIU)		PO #:				1	-2-4	1						
Address:		Samp	ler's sig	natur	es: /	, , , , , , , , , , , , , , , , , , ,	111	1_	1		and the same of the same and the same of t			
BLASLAND, BOLOR - LEE					3, 4	Willey!			_					
DIADIAND, DOUR " LEE			OC for					(XXX)	1)/					
Phone #: (410) 295-1205			project				01		_					
Fax #:		BRL p	roject II	D: £	BLO	06					www.	brool	ksran	id.com
For BRL use only   Cooler temp (***)	)	Gustody	seals pr	eseni	9 (Y/I	(N)	ાલા	dly soel	ini a	hell (Y/	N)	Date		स्रोधीता
Collecti	ion M	iscellane	eous	Fie	ld Pres	ervati	on		A	nalyses r	equire	d		Comments
Sample ID	Time Sampler (initials)	Matrix type	Sample field filtered , Y/N	Unpreserved or ice only	HNOs	BrCl	Other (specify)	METHIMERUA ISEDA 11030	MSMS			L		
1 BPL-H65ED-33(0-0.5') 5/8/13 0	750 RX	SED 1		X										
2 BAL-H6SED-33(05-1-8) 07	250	10	$\lambda$	X				X	X					
3 RPL-HESED-64(0-0-5') 120	000			X		2 3 3		X						BLIUD DYPLIANTE OF BAL-HESED-35/0-05
4 BPL-HGSED-34 (0-0.5) OF	300			X				X				7		
	310	1		X				X						
	810			X				X						
	825			X				X				10.1		
	815			X				X						
	815	1		X				X						
10 PC-145xD-38(0-0.5) V 08	840 V	VI	3	X				X	X					
Shipping carrier: AXEX # : 83X	2545 3										#	of co	oolers	s: /
Relinquished by: farmed	Date	5/8/05	Time: /\	6	Receiv	ed by:						Dat	e:	Time:
Relinquished by:	Date		Time:		Preceiv	ગ્રાંભા દ	E(L)					Date	(e)	गिल्ल

White: LAB COPY

Page 2 of 3

Client: BBL Contact: PAULA LUARDIN Address: BIASLAND, BOCK: L Phone #: (410) 295-1205 Fax #: For BRL use only Cooler	CE -	(9)		PO # Sam Fax Clier BRL	il addre i: IDZ pler's s  COC fo nt project project py seals	r rece t ID:	ipt co	onfir 2.94-	mati		(Y(N))	)		3958 Seatt Phone Fax: Email www.	e: 206 206 : brl 6 brook	/enu A 98 6-632 6-632 9 bro	e NW 3107 2-620 2-601 oksra	6 7 and.com	
	Colle	ction	N	liscella	neous	F	ield P	rese	rvatio	on		Anal	yses re	equire	d		(	Comments	
Sample ID	Date	Time	Sampler (initials)	Matrix type	# of containers Sample field filtered ,Y/N	Unpreserved or ice only	HNO <sub>3</sub>	HCI	BrCl	Other (specify)	METHY! MERCURY USETA 11030	MS/MS/							
1 RN-145ED-39(0-05) 2 RDL-145ED-39(05-15)	Stahe	0850	Par	50	1	X					X								
2 BPL-H65KD-39(05.15)	1	0950	1	1	+	X					2	-	_						
3 RPL-H55D-4D(0-0.5) 4 RM-H55D-41(0-0.5)	-	0905		HH	+	X					X	+	-						
4 BA-HSKD-41 (0-0-5) 5 BA-HSFD-41 (0-5-14)		082		H	1	X					X	+	+						
6 RPL-1415612-42(0-0.5)		0570				X					2							· ·	
7 RPI-1454D-43(0-0.5)		0930			Í	X					X								
8 BD- 46 415- 43(05-15		0930		H	1	X					X		-						
9 87-14540-44 (0-0.5)		1000	1		1	X					N	-	+				Bush Apular of Ros - Hosp yylo	2 .	
10 RPI-14547-65/0-05	W/	1300	V			X					X			1 4	# of coolers:			05,)	
Shipping carrier: First.	# .	55217		11			Dar	o live -	l b. a										
Relinquished by:	1)/	/		5/8/05	Time	00	ERMINERING	eivec	MARKET SALES		Zaka (Saka)	\$3.69°50.5			R CONTRACTOR	DE CONTRACTOR OF THE PARTY OF T		a straight agus as rea	EXCENS.
Relinquished by:			Date	):	Time:		िनिहा	(alva)	ક્ષિ ફિ	BILG.					Detr	<b>5</b> ) 1000 100		i i i i i i i i i i i i i i i i i i i	And I

White: LAB COPY

Page\_\_\_\_\_\_\_of\_\_\_\_\_

Client: RM.			l address	3:			,	Ship to: <b>Brooks Rand LLC</b> 3958 6 <sup>th</sup> Avenue NW				
Contact: DAVID LUDINIB	-	PO#		12.94.		1	1					
		Sam	oler's sig	natur	es:	//	11/1	The second secon	le, WA 9			
RIASIAND BODGE LE	E					Decely		Phon	e: 206-63			
Address: BIASLAND, BOUCE; LE			COC for I				? (Y.(N)	Fax:	206-63			
Phone #: (410 \ 295 - 1705			t project							ooksrand.com		
Fax #:		BRL	project II	D: /	BRLOO	6	and distributions in the end and any other in the	www.	brooksra	nd.com		
For BRIL use only Cooler temp (	(G)r.	ଠାନ୍ତାଠା	y seals pr	eaau,	? ( Y / N,	)   ଜାନା	<b>া</b> । প্রাক্রণ গাত	mear (Y/N)	Deller	Inflets.		
Colle	ction	Miscellan	eous	Fie	ld Prese	rvation		Analyses require	d	Comments		
Sample ID	Time Sampler (initials)	Matrix type	# of containers Sample field filtered ,Y/N	Unpreserved or ice only	HNO <sub>3</sub>	BrCl Other (specifv)	METHY METECURA USEDA 16 30	MS JMSN		RUX BIANS NEW TO BE PRESERVED PH LABORATOR		
1 BPL-HISED-Y5(0-05) 5/8/0	0950 R	IN SET		X			X					
2 RPI-H6SED-45(05+4)	0950		1	X			X					
3 BDL-H6SED-46(0-0.5)	6940		2	X			XX					
4 RPL- H6SED-53 (005)	1015			V			X					
5 AD - 465xD-53(05+5)	1015	114		X			K					
6 BPZ-H6SED-23	Ino	H20		X			K			RUSE BLANK		
7 APL-46-20-74 V	1615	WH20		X			K			PINTE PHANK		
8												
9												
Chinaina coming DA - 1/2 R3	2017.30	15 3111							of cools	0. 1		
Shipping carrier: Fivex # . 83	7 7	711						# of coolers:				
Relinquished by: Therewall !	D	ate:5/8/2=	Time: />	0	Received	by:	Application of the second	1 SENIOR THE TAX STREET	Date:	Time:		
Relinquished by:	D	ate:	Time:		Placetivac	acial-iL.			าสาสนี	Te footers		

White: LAB COPY

(SOP# MSL-A-001 & MSL-A-002)

... Putting Technology To Work Pacific Northwest Division Marine Sciences Laboratory 1529 West Sequim Bay Road Sequim, Washington 98382

Project Name: 5	SOLUTA-BORROW ATLAKE SEDM	15×17 54	MACIOS	
Project Manager:	DAVID LUNGIL		<i>a</i> '	est Parameters
Phone Number:	(410) 295-1205			
Shipment Method: Preservation:	FEDER#: 8371 2545 317	Containers	16 - 2471	

Line   Field Sample ID   Date/Time   Matrix   2   2   3						၂ ပ	3	SIN	1	1	<u> </u>	
2 6N ASSD-55 (0.5.45) 3 6N ASSD-56 (0.5.5) 4 6N ABSD-66 (0.5.5) 5 6N ABSD-66 (0.5.5) 6 6N ABSD-56 (0.5.5) 7 1 AL-MSED-58 (0.5.5) 8 1 X 7 1 AL-MSED-58 (0.5.5) 9 1 X 9 1 AL-MSED-58 (0.5.5) 10 PN ABSD-75 11 1 AL-MSED-57 (0.5.5) 12 AL-MSED-75 13 AL-MSED-75 13 AL-MSED-75 14 AL-MSED-75 15 AL-MSED-75 16 AL-MSED-75 17 AL-MSED-75 18 AL-MSED-75 18 AL-MSED-75 19 AL-MSED-75 19 AL-MSED-75 10 PN ABSD-75 11 AL-MSED-75 1	Line	Field Sample ID			Matrix		15.25 15.05	V			Laboratory ID	Observations/Comments
3 B.M. HOSED-56 (0.05) 0.785   X   BUNDOSPULLE OF SECONDS   X   X   X   X   X   X   X   X   X	1	AH-HGED-55(0-05)		ONS	SED		X					
4 A.M. HOSED-66 (0-0-5) 1700   X   Bundo structed for the state of the	2	6H-14SCD-35/05-15		075			X					
5 PP-H(SED-S) (0-05) OBYD X 6 PA-H(SED-S) (0-515) OBYD 2 X X 7 PA-H(SED-S) (0-05) OBX 1 X 8 PX-H(SED-59 (0-05) OBX 1 X 9 PA-H(SED-59 (0-05) OBX 1 X 10 PA-H(SED-SY (0-05) OBS V 1 X 11 PA-H(SED-75 V 1PD HZO I X 11 PA-H(SED-75 V 1PD HZO I X 12 PASEDANK - UNITS TO HI				0755			X					
5 PP-H(SED-S) (0-05) OBYD X 6 PA-H(SED-S) (0-515) OBYD 2 X X 7 PA-H(SED-S) (0-05) OBX 1 X 8 PX-H(SED-59 (0-05) OBX 1 X 9 PA-H(SED-59 (0-05) OBX 1 X 10 PA-H(SED-SY (0-05) OBS V 1 X 11 PA-H(SED-75 V 1PD HZO I X 11 PA-H(SED-75 V 1PD HZO I X 12 PASEDANK - UNITS TO HI				1200			X					BOT-HEED-20 (0-0-2.)
7 P(L-N/SED-58/005) ORTS   X   8 BX-HEED-59(005) ORTS   X   9 F(L-NUSED-59(005)) ORTS   X   X   9 F(L-NUSED-59(005)) ORTS   X   X   10 P(X-PUSED-59/005) ORTS   X   X   X   X   X   X   X   X   X				0890		!	X					
8 PX - HEED-57 (0-05)	6	FAL-HOSED-5) (05-15)		0890		12	X	X				
9 (1-45)-9(05-15) 070 1 X 10 PX-1-15D-59(0-05) 075 V 1 X 11 PO-1-16SD-75 V 1130 HZO X PRESIDENCE	7	MIL-HISED-58/00-5		0885								
10 PR - 14(SED-54(0.05)) 075 V 1 X RUREBANK - UNUS TO HE 12 PRESENDE MINERAL MEDICAL M				05(0								
11 PM - MOSED-75 V 1130 H20 1 X RUSE BLANK - UNITED TO HI 12 PROGRAM PA LAROPSING	9	181-50 R-1451H-179	)			11						
12 1 Prototo A LAFOTONE			) [			1	X	ļ				
12 / PREMADIA AND A LANGER	11	17-14270-75		1130	HZO	$\bot \bot$	1X					RUME BLANK - LONGESTONE
<del> </del>	12	Ý	·				<u> </u>					PROJECTION ALLASONOR
14	13						<u> </u>					
	14						<u> </u>	<u> </u>				
15	15			<u> </u>		<u> </u>	<u> </u>	<u> </u>				

	Company:	15 1202	Received By:	Company:	
Signature/Printed Name		5/9/b3 /300 Date/Time	Signature/Printed Name		Date/Time
Relinquished By:	Company:		Received By:	Company:	
Signature/Printed Name		Date/Time	Signature/Printed Name		Date/Time

Distribution: White - Laboratory, Project Files Yellow - Laboratory, Client Pink - Sampler

Page \_\_\_\_\_ of \_\_\_

Page / of 2

Client: KL						dres								Ship t						
Contact: DAVID LUDIOID				PO				4.00	)	1										l <sub>e</sub>
Address:				San	npler	's sig	natu	res:	1	/	1	11	/		3958 6 <sup>th</sup> Avenue NW Seattle, WA 98107 Phone: 206-632-6206 Fax: 206-632-6017 Email: brl@brooksrand.com www.brooksrand.com linitials: alyses required Comments					
BLASIAND, BOUCE: LE	F							1	M	ull	1/	ne	4			Seattle, WA 98107 Phone: 206-632-6206 Fax: 206-632-6017 Email: brl@brooksrand.com www.brooksrand.com  Y/N-) Date: Initials: s required Comments				
											on?	(Y (1	1							
Phone #: (410) 295-1205						oject							_							
Fax #:		No. of Control of Control				ject I								· ·		DESCRIPTION OF	brook	sran	d.con	1
For BRL use only   Cooler t	emp (	·C);		Custo	dy se	als pr	esen	t? ( Y	(/N)	Q	ustod	dy sea	ls in	lact? (	Y/N	1)	Date:			Initials:
	Colle	ction	M	iscella	neou	s	Fi	eld P	resei	rvatio	n		A	nalys	es re	quire	d		C	omments
Sample ID	Date	Time	Sampler (initials)	Matrix type	# of containers	Sample field filtered ,Y/N	Unpreserved or ice only	HNO <sub>3</sub>	HCI	BrCl	Other (specify)	METHY I MECLES I USETA 163A	OSWSW							
1 BPL-HISED-55 (0-0.5)	5/9/03		PX	30	1		X					X								
2 AA-14GFD-75(05-15)		0745			-		X					X	-					-		
3 AN-HSED-46(005) 4 RN-HSED-66(005)		0735			+		X					X	-				-		BUND	Apurage of
4 RM-1465ED-6660-0.53 5 RM-1465ED-5760-0.53		1200			+		X					4							APL-H	35ED-86 (0-0-5
6 RM-1455D-57(0.5-15		0840			5		X					(V)	K	1						
7 RY- HISTA-SELO-0.5)	1	0825			T		V					N								
8 FOI- HISEN-5910-051		7770			1		X				7.2	1								
9 BAC-1469ED-596.5-15		0770			-		X				July 3	X	. ,							4
10 BR-H5-ED-54(0-0-5)	V	0755	V.	V			K					X								
Shipping carrier: FENTY #	. 8	371 2	71 2545 311.9 # of coolers: 1			: 1														
Relinquished by: Rangel	1/1		Date	: 5/9/6	Tim	ne: /3	$\alpha$	Rece	eived	by:							Date: Time:			Time:
Relinquished by:			Date		Tim	ne:		Plece	elived	at Bl							Date			Timer 4

White: LAB COPY

Page Z of Z

Client: RBC			Ema	il ad	dress	s:			Λ			Ship							
Contact: MUID LUDWIL	7	PO #: /02.94.00( // Sampler's signatures: //															ie NW		
Address:	*.		Sam	pler'	s sig	natu	res:	11	/		1/						8107		
BLASLAND, BOOK ? LE	7							rue	Delle								2-620		
DIASAND, DOUCK "ht	it										(Y(N)			-ax:			2-601		
Phone #: (410) 25-1205			Client project ID: ///.co/							Email: brl@brooksrand.com						n			
Fax #:			BRL project ID: B8L006								www.brooksrand.com								
For BRL use only Cooler ten	np (°C);	C	Custo	dy se	als pr	esen	17 (1	(/N)	) G	usto(	dy seals ii	ntact?	(Y/I	٧)	Date:			Initials	
C	ollection	Mi	scella	neou	s	Fi	eld P	resei	vatio	on		Analys	es re	quire	d		(	ommen	its
	. Date Time		Σ	# of containers	Sample field filtered ,Y/N	Unpreserved or ice only	HNO <sub>3</sub>	HCI	BrCl	Other (specify)	METRY I METECURAL USEDA: 1102D								
	9/03 1130	KOK	Ho			X					X		1499					sinx-10	
2												_		. 5				GERVED !	34
3	<u> </u>		-									-					LABO	eator.	
5			-									-					_		
6												-							
7												1							
8																-			
9								-											
10														31.					
Shipping carrier: HOEX #	0 183	11 25	45	3169										#	of co	ooler	s:		
Relinquished by: Rosero MI	1/		5/1/03		e:/30	3	Rec	eived	by:						Dat	te:		Time:	
Relinquished by:	Date: Time: Received at BRIL											Dat	(e)		Time	147			

White: LAB COPY

Page\_\_/\_\_of\_\_/\_\_

Client: RBL											Ship to: <b>Brooks Rand LLC</b> 3958 6 <sup>th</sup> Avenue NW									
Contact: DAVID LUDW	145		Ċ	PO			94.0			/	1	1								
Address:				Sam	pler	's sig	natu	res:	1	/_	//	4	_						8107	
BLASLAUD, BOXCY: LE								- /	1700	elly	/		4						32-620	
DUBLAWD, DOCK: LE	E											(Y/K	14			ax:			2-601	
Phone #: (4/0) 795-1205	5		10	Client project ID: /b2.94.00@ BRL project ID: 88L006						8	C. C. C.	1	Email: brl@brooksrand.com							
Fax #:	and the same of th			BRL	pro	ject I	D: /	BAL	.60	THE PROPERTY.	4 80 4 1 2 8 1 3 3				CONTRACTOR OF	Company of the last of the las	.broo	ksra	nd.cor	n
For BRL use only Cooler	temp (	(C))		Custo	dy se	als pi	(e\$(e)n	(P)	(//N)		usto(	dy sea	ls in	tact?	(Y//I	V)	Date	1		Initials;
	Colle	ction	M	liscella	neou	IS	Fi	eld P	resei	rvatio	n		1	Inalys	ses re	quire	d		(	Comments
Sample ID	Date	Time	Sampler (initials)	Matrix type	# of containers	Sample field filtered ,Y/N	Unpreserved or ice only	HNO <sub>3</sub>	НСІ	BrCI	Other (specify)	BACKETH METHIMOGUAL	NEIMSD							
1 BX-H65ED-01 (0-0.5)	5/12/0	1145	RX	SED			X					X								
2 BA-HESED-01(0.5-0.9)		1145			1		X					X					1213			
3 BD-H6SED-67(0-0.5')		1330			1		X					X			- 33				BUD!	SED-01 (0-05')
4 BN-146SED-05(0-05)		1230			2		X					X	X	-						
5 APL-HESTD-05 (0.5-15)		1230		$\dashv$			X					X								
6 BX-H6SED-07 (0-0.5)		1245			4		X					X						_		
7 BQ-H6SED-07 (0.5-1.4)		1245	-		-		<del>V</del>			_		X							-	
8 BA-H650-09 (0-0.5)	-	1300			1		X					/ \						-	-	
9 BPL-HGYD-09 (0.5-1.5)	1	1300		W	1		Ŷ					X							X RINTE	BINUKAREDSTOBE ED BY LABORATORY
10 BX-H6510-76	V 22	1500	W	1470			Λ									-	-6-			ED IST CABORATORY
Shipping carrier: FEDEX #		Name and Address of the Owner, where the Owner, which is th	15	7.		.,	0)									#	of c		S. /	,
Relinquished by: ROLAND L	) KUH	W	Date	5/14/03	Tim	ne: /b	1)	Rec	eived	by:							Da	te:		Time:
Relinquished by:			Date	:	Tim	ne:		Pleas	\$1).V=10	EUB	ijĮ.						Da	iter -		Titores

White: LAB COPY

(SOP# MSL-A-001 & MSL-A-002)

... Putting Technology To Work Pacific Northwest Division Marine Sciences Laboratory 1529 West Sequim Bay Road Sequim, Washington 98382

Project Name: Sturia Anelow Pir (4th SEDIME) Project Manager: Dain Luwih	UT SAN	Ninto	Tast Da	rameters
Phone Number: (410) 275 - 1205			Testra	lameters
Shipment Method: Preservation: 48 371 2545 3/71	Containers	personal of	ON/S	·

					<b>S</b>	1 W		i		
Line	Field Sample ID	Collection Date/Time	Matrix	No. of	SUBYLE SYSTE	AIS	•		Laboratory ID	Observations/Comments
1	RDL-AGSED-01 (0-0.5)	5/12/03 145	SED	1	X					
2	PM-1464D-01 (0.5.09)	1145		$\overline{l}$	X					
3	PM-HUZD-67(0-05)	1330		1	X					BLUD CAPTIBLE OF BR-HESED-OI (0-0.5')
4	RM-HUSED-05 (0.0.5)	1230		2	X_	X				
5	M-145EN-05 (0.5-15)	1730			X					
6	AX-45-67 (0.05)	1245			X					
7	M-1458D-07(05-1.4	1245			X_	<u> </u>				
	PM-462D-07 (0-05)				X					
	RM-1454 D-09 (0.5-15				X					
	Mr. 46×10-76	1/ 1500	H20		X					* RUSE FLANK - NEEDS TO BE
11			1100							PATTERD BY LEFTRAPIAL
12										
13										
14										
15	1									
*		· · · · · · · · · · · · · · · · · · ·								

	D. KIN Company:	-/p/. 3	Received By:	Company:	
Signature/Printed Name		Date/Time	Signature/Printed Name		Date/Time
Relinquished By:	Company:		Received By:	Company:	
Signature/Printed Name	<del></del>	Date/Time	Signature/Printed Name	***	Date/Time

(SOP# MSL-A-001 & MSL-A-002)

. . . Putting Technology To Work Pacific Northwest Division Marine Sciences Laboratory 1529 West Sequim Bay Road Sequim, Washington 98382

Project Name:	SOLUTIA-BORRON PITLAKE SEDIME	ur Sandi	Xh.			
Project Manager:	DAVID LUDWILL			Test Para	meters	
Phone Number:	(410) 295-1205					
Shipment Method: Preservation:	FEDEX #: 830/ 2545 322	Containers	MERCURY YO 7471	OKW/		

				] :	17 82	/s	- 1		
Line	Field Sample ID	Collection Date/Time	Matrix	No. of	SW BY	/sw		Laboratory ID	Observations/Comments
1	BOL-HS&D-60(0-0.5)	5/13/03 0920	SED	11	X				
2	RD-17(0.0.5)	67/5		<u> </u>	X				
3	BA-HISED-17(0.5-1.2)	0725			X				
4	RM. HSED-19(0-0.5)	0740		11	<u> </u>				
5	BAL-1465ED-17(0.5-1.5)	0240			X				
6	AL-H6SED-21(0-0-5)	0750		1	1×			 	
7	M. HSED-21 (05-13)	000			Ŷ			 	
8	RPL-H64D-47(0-0.5)	0810			X				
9	BN-145-60-47605-145	080		1	X				
10	PAL-HISED-48(0-0.5)	0870			X				
18	FA-HUSEN-(810-0.5)	1000			IX.				BLUD CHILLIE OF BC-HSSED-48(0-0.5')
12	MY. 465CD-47(0-05)	0330		<u> </u>	X			 	
13	PAR. H6SED-47/0.5-1.35	08:0			X			 	
14	PR-14560-50(0-0-5)	0855		12	<u> X</u>	X			
15	FR. H650-5110-0.5	V 0875			N.				
	1				_ ~			 	

Relinquished By: ROUND D.	, ,	Received By:	Company:
Signature/Printed Name		Signature/Printed Name	Date/Time
Relinquished By:	Company:	Received By:	Company:
Signature/Printed Name	Date/Time	Signature/Printed Name	Date/Time



. . . Putting Technology To Work Pacific Northwest Division Marine Sciences Laboratory 1529 West Sequim Bay Road Sequim, Washington 98382

(SOP# MSL-A-001 & MSL-A-002)			-	*
Project Name: Solution - ROPROW FIT LAFE SCOMENT	SAI	W. 16	.44	
Project Manager: Aus huswi6			Test Param	neters
Phone Number: (410) 275 - 1205				
Shipment Method: 1-ENEV #: 837   2545 3228  Preservation: 4°C	Containers	MERICUES SHE ZYST	OSTANIS	a

Line	Field Sample ID	Collection Date/Time	Matrix	No. o	10 A	\$	"		Laboratory ID	Observations/Comments
	AN. HSED-51 (0.5-12)		2ED	1	X	,				
2	AIL. HSED-52(0-0.5)	085	<b>V</b>	2	X,	X				:
	FX - HSED-77	1330	H20	1	X			·		MASIRED BY LABORATON
4										
5				<u> </u>					7	1
6					:					
7		*								
8										
9					* 3					
10				<u> </u>	<u> </u>					
1				1						
12				<u> </u>		1				
13						,				
14										
15										
			<del>-</del> -				-			

Relinquished By: Kou Ay D. Kul	Company:		Km	Received By:	Company:	
Signature/Printèd Name		Date/Time	F00	Signature/Printed Name		Date/Time
Relinquished By:	Company:			Received By:	Company:	
					•	*
Signature/Printed Name		Date/Time		Signature/Printed Name		Date/Time

Page of Z

Client: RRI		s:	A					Ship to: <b>Brooks Rand LLC</b> 3958 6 <sup>th</sup> Avenue NW											
Contact: DALID LUDIC Address:  BIASIAND BOUCK;  Phone #: (410) 295-1205	16					02.94				4	/								
Address:				San	npler	's sig	natu	res:	He.	20 100	1		_			le, W			
RIASIAND BOUCK.	IE.			-	000	2 (				elle		N/ 161	+			e: 206			
Dhana #1 ( (10) 32											on?	(Y/N	1		Fax:		-632-		
Fax #: (4/0) 275-1705				DDI	Client project ID: /b2.94.00								+			brook		ksrand	com
<b>医型心理心理学的现在分词</b> 。由于中心之间,他们也可以				A SECTION OF THE SECTION	BRL project ID: RAL (											100000000000000000000000000000000000000	Stand	and the same	
For BRL use only   Cooler	temp (	(C);		Custo	dy se	als pr	esen	tv ( y	7/N)	) (9	usto	dy seal	s Intac	tr (Y/	N)	Date:		ini	tials:
	Colle	ction	M	iscella	neou	s	Fi	eld Pi	resei	rvatio	n		Ana	lyses r	equire	d		Com	ments
Sample ID	Date	Time	Sampler (initials)	Matrix type	# of containers	Sample field filtered ,Y/N	Unpreserved or ice only	HNO <sub>3</sub>	HCI	BrCl	Other (specify)	METHY MERCURY USEXA 11030	MS/MED						
1 AN-HOSED-100(0-0.5)	5/13/03	0920	BYL	SED	1		X					X		1.14					~
2 RM-165ED-17 (0-0.5) 3 RN-145ED-17 (0.5-1)		0725			1		X					X					-		
3 BD-15=D-17(0.5-12) 4 BD-165=D-19(0-05)		0755			+		$\Diamond$					$\Diamond$	_	_				-	
5 RIL- NSED-19 (05-15)		OYKO			1		$\Diamond$					X						•	
6 BD-HIFFN-21(0-0.5')		0250			i		X	- 3				X							
7 ADL-1465ED-21(U.5-13)		070			i		X					X		-					
8 BA-HGED-47(005)		0810			1		X					X						1	
9 BPL-HGED-47(0.5-145		0810			1		X					X							
10 PM-HUSED-48 (0.0.5)	V	6870	V	W			X					X	1						
Shipping carrier: FENEX #1: 8371 2545 3217						_					# of coo				1				
Relinquished by:	d by:   Date:5/13/02 Time: 1500					Received by: Date:				Tir	ne:								
Relinquished by:		5	Date									Date		Tir	ne:				

White: LAB COPY

Page 2 of 2

Client: BL				Email address:							Ship to: Brooks Rand LLC					
Contact: DAVID / WWIL				PO #: 102.94.001 // N							3958 6 <sup>th</sup> Avenue NW					
A 1 1				Sampler's signatures:							Seattle, WA 98107					
BASIAND, BOUCK: LIE				Moule							Phone: 206-632-6206					
				Fax COC for receipt confirmation? (Y/N))							Fax: 206-632-6017					
Phone #:(410) 275-1205				Client project ID: /p2.94.00/							Email: brl@brooksrand.com					
Fax #:				BRL project ID: RRL 006							www.brooksrand.com					
For BRL use only   Cooler tel	mp (°C):		Custod	ly seals p	resen	17 (Y	(N)	Custo	dy seal	ls inta	ct? ( Y / I	٧) - [	Date		Initials:	
	Collection	on A	Miscellaneous			Field Preservation				Analyses requ			d	C	omments	
Sample ID		Time Sampler (initials)	Matr	# of containers Sample field filtered ,Y/N	Unpreserved or ice only	HNO <sub>3</sub>	HO!	Other (specify)	METH/MERCURY USEDA 1630/	NSMSD						
		DOD PIX	SED	1,	Ŷ			-	X					VA-W	D-48(0-05)	
2 BN-465ED-47(0-0.5) 3 BH-1465ED-47(05-15)		830	HH		X				<del>\( \)</del>	-	-	1				
3 BA-165ED-47(05-1.35) 4 BA-165ED-50(0-0.5)	1 00	355		2	$\Diamond$				X	N	-					
5 BIL-HESED-SI(0-0.5)		345		9	X				N	4						
6 BPL-HSED-51(0.5-12)		345		1	X				X			1. 1				
7 BA-HSEN-52(0-0.5)		335		2	X				X	X						
8 BX-H65CD-77	V/13	30 V	140		X				X			1		KINSEL	POSENCO RI	
9			1.0		/				'					/	SORATOR!	
10																
Shipping carrier: HNFX #: 8371 2545				3217							. 30 %	# of coolers:				
A /1///			:5/13/0	Time: /50	Received by:						Date:		Time:			
Relinquished by: Date			e:	Time:	Received at BRIC:							Datte		Times		

White: LAB COPY

